

# Loop Powered Signal Conditioners

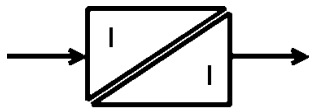
## WAVEANALOG DC/DC

- Input loop powered
- Galvanic isolation
- 1, 2-channel versions
- Low power consumption
- Safe separation

### Approvals:

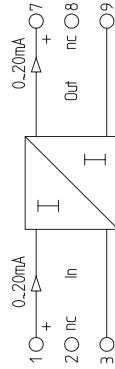


### Block diagram



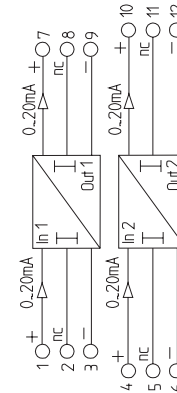
## CCC LP (1 channel)

0(4)...20 mA/0(4)...20 mA



## CCC LP (2 channel)

0(4)...20 mA/0(4)...20 mA



### Ordering data

Screw connection 1 channel

Tension clamp connection 1 channel

Screw connection 2 channel

Tension clamp connection 2 channel

Input/output

### Type

WAS5 CCC LP

WAZ5 CCC LP

### Part No.

8444950000

8444960000

0(4)...20 mA/0(4)...20 mA

### Type

WAS5 CCC LP

WAZ5 CCC LP

### Part No.

8463580000

8463590000

0(4)...20 mA/0(4)...20 mA

### Technical data\* (per channel)

#### Input signal

Input voltage max. drop

Input current max

Operating current

Voltage drop

0...20 mA (4...20 mA)

18 V

50 mA

< 100  $\mu$ A

approx. 3 V at  $R_L = 0 \Omega$

$I_{in} = 20$  mA

approx. 13 V at  $R_L = 500 \Omega$

at  $I_{in} = 20$  mA

#### Output signal

Load resistance

Accuracy at  $T_U = 23^\circ\text{C}$

Influence of load resistance

Temperature coefficient

Set time

Residual ripple

Chopper frequency

0...20 mA (4...20 mA)

$\leq 500 \Omega$

< 0.1% of FS

< 0.1% from measurement value

per 100  $\Omega$  load resistance

50 ppm/K of FS

4.5 ms at 500  $\Omega$  working resistance

< 20 mV<sub>eff</sub>

approx. 170 kHz

0...20 mA (4...20 mA)

18 V

50 mA

< 100  $\mu$ A

approx. 3 V at  $R_L = 0 \Omega$

$I_{in} = 20$  mA

approx. 13 V at  $R_L = 500 \Omega$

at  $I_{in} = 20$  mA

0...20 mA (4...20 mA)

$\leq 500 \Omega$

< 0.1% of FS

< 0.1% from measurement value

per 100  $\Omega$  load resistance

50 ppm/K of FS

4.5 ms at 500  $\Omega$  working resistance

< 20 mV<sub>eff</sub>

approx. 170 kHz

### General

Operating temperature

Storage temperature

Dimensions W/L/H

Approvals

-25°C...+70°C

-40°C...+80°C

17.5/92.4/112.5 (.69/3.64/4.43)

CE, UL, CSA, GL

-25°C...+70°C

-40°C...+80°C

17.5/92.4/112.5 (.69/3.64/4.43)

CE, UL, CSA, GL

### Coordination of insulation according to EN 50178, 04/98 (safe separation)

Rated voltage

Rated surge voltage

Overvoltage category

Contamination class

Clearance and creepage distance

Isolation voltage, voltage strength

Input/output, channel/channel

Input/output to mounting rail

Standards/specifications

EMC standards

Dimensions and accessories see

300 V

6 kV

III

2

$\geq 5.5$  (.27)

4 kV<sub>eff</sub>/1 s

4 kV<sub>eff</sub>/1 min

EN 50178 (safe separation)

EN 50081, EN 50082, EN 55011

Page 356 + 366

300 V

6 kV

III

2

$\geq 5.5$  (.27)

4 kV<sub>eff</sub>/1 s

4 kV<sub>eff</sub>/1 min

EN 50178 (safe separation)

EN 50081, EN 50082, EN 55011

Page 356 + 366

\* $T_U = 23^\circ\text{C}$  single module